

PURCHASE DESCRIPTION

VSWR MEASURING TEST SET **TS2FF**

- 1.0 GENERAL. This procurement requires a VSWR Measuring Test Set consisting of an impedance comparator, two matched terminations and six mismatched terminations. The test set, when used with a sweep generator and an oscilloscope, will provide a direct display of VSWR vs. Frequency. The comparator provides an ALC output for signal generators with ALC inputs. The terminations provide accurate calibrated VSWR standards from 1:1 to 2:1.
- 2.0 CLASSIFICATION. The generator described herein shall meet the requirements of MIL-T-28800(), Type III, Class 5, Style E, Color R for Navy shipboard, submarine, and shore applications with the following exceptions:
- a. The non-operating temperature requirements is limited to the range of -40°C to +70°C.
 - b. The relative humidity requirement is limited to 95% noncondensating.
 - c. The operating and non-operating altitude requirements are not invoked.
- 3.0 OPERATIONAL REQUIREMENTS. The equipment shall be capable of operating within the parameters and accuracies specified herein.
- 3.1 Impedance Comparator
- 3.1.1 Frequency Range: At least 0.05 to 1200 MHz.
 - 3.1.2 Bridge Accuracy: $\pm 1\%$ of VSWR measurement.
 - 3.1.3 Impedance: 50 ohms
 - 3.1.4 Connectors
 - 3.1.4.1 RF Input: Type N Female.
 - 3.1.4.2 Z1Z2: Type N Female.
 - 3.1.4.3 Output: Type BNC Female.
 - 3.1.4.4 ALC: Type BNC Female.
 - 3.1.5 VSWR Output Time Constant: At least 10 μ sec.
 - 3.1.6 VSWR and ALC Output Polarity: Negative.

3.1.7 Maximum Power Output: At least 0.5W.

3.2 Terminations and Mismatches

3.2.1 Frequency Range: 0 to 3 GHz.

3.2.2 Reference Impedance: Nominally 50 ohms.

3.2.3 VSWR Accuracy: 5% of VSWR value.

3.2.4 Power Rating: 1 Watt maximum.

3.2.5 Connectors: Type N male.

4.0 GENERAL REQUIREMENTS

4.1 Calibration Interval: The calibration interval shall be at least 12 months minimum. The equipment shall be within all accuracy requirements specified herein, with a 72% of greater confidence factor following a calibration interval of 12 months.

4.2 Dimensions: The total volume of the test set shall not exceed 105 in³ (1,720 cm³).

4.3 Weight: The total weight of the unit shall not exceed 5 lbs (2.3 kg).